

Lucrări Publicate
dr. Ing. Ionel-Alexandru GAL

1. Alexandra-Cătălina Ciocîrlan, Luige Vladareanu, **Ionel-Alexandru Gal**, Bianca Ghinoiu, L. Sang, and Y. Ning, Intelligent Control Systems for Motion Vectors of Autonomous Mobile Robots, 25th International Conference on Control Systems and Computer Science, CSCS25 - Control Systems.
2. Ning, Yuansheng, Luige Vlădăreanu, Lingfeng Sang, Peng Chen, **Ionel-Alexandru Gal**, Hongbo Wang, Ștefan Ghibanu, and Qi Wang. "Research on Trajectory Planning and Adaptive Flexibility Control Strategy for Upper Limb Exoskeleton Rehabilitation Robot." In International Conference on Innovation of Emerging Information and Communication Technology, pp. 41-53. Springer, Cham, ICIEICT 2025.
3. Alexandra-Cătălina Ciocîrlan, Luige Vlădăreanu, **Ionel-Alexandru Gal**, Bianca Rodica Ghinoiu, Cristina Marilena Nițu, Marius Pandealea, Mihaela Iliescu, „Robot vector operating system for localization and mapping”. The Joint International Conference of the 3rd International Conference on Advanced Research in Engineering, CARE 2024, and the 7th International Conference on Mechanical Engineering, ICOME 2024, Craiova, Romania.
4. Alexandra-Cătălina Ciocîrlan, Luige Vlădăreanu, **Ionel-Alexandru Gal**, Bianca Rodica Ghinoiu, Cristina Marilena Nițu, Marius Pandealea, Mihaela Iliescu, Robot Vector Operating System for Localization and Mapping, Acta Technica Napocensis Series-Applied Mathematics Mechanics And Engineering, <https://atna-mam.utcluj.ro/index.php/Acta/about>, JIF 0.1, Q4
5. **Ionel-Alexandru Gal**, Daniel-Octavian Melinte, Alexandra-Cătălina Ciocîrlan, (2024) „Platformă Versatilă, Inteligentă, Portabilă cu Sisteme de Control în timp Real al Roboților (Vol. 1)”, pp.164, Ed. Pim Iași. Editori Luige Vlădăreanu, Victor Vlădăreanu.
6. **Ionel-Alexandru Gal**, Luige Vlădăreanu, Mihai Rădulescu, Ionel Pușcașu, „Cybersecurity Enhancement in Industry 4.0 Robotic Solar Power Plants”, symposium - SISOM 2024, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 19-20 September 2024, presented paper
7. Vladareanu, Luige, Hongbo Wang, Marius Pandealea, Victor Vladareanu, **Ionel-Alexandru Gal**, and Ștefan Ghibanu. "Hybrid HQ Stereo Cameras and RPLIDAR Sensor System Applied to Navigation of the Autonomous Mobile Robots." In International Conference on Innovation of Emerging Information and Communication Technology, pp. 337-349. Cham: Springer Nature Switzerland, 2024. ISBN: 978-3-031-53236-8. Book chapter.
8. Vladareanu, Luige, Hongbo Wang, Marius Pandealea, Victor Vladareanu, **Ionel-Alexandru Gal**, and Ștefan Ghibanu. "Hybrid HQ Stereo Cameras and RPLIDAR Sensor System Applied to Navigation of the Autonomous Mobile Robots." In International Conference on Innovation of Emerging Information and Communication Technology, pp. 337-349. Cham: Springer Nature Switzerland, 2023.
9. **Ionel-Alexandru Gal**, Luige Vladareanu, Victor Vladareanu, Daniel-Octavian Melinte, "Industry 4.0 Renewable Energy Power Plant Architecture using Next Generation Service Interface Linked Data Connectors," 2023 8th International Conference on Mathematics and Computers in Sciences and Industry (MCSI), Athens, Greece, 2023, pp. 155-160, doi: 10.1109/MCSI60294.2023.00033, Publisher: IEEE, ISBN 979-835034165-2, DOI 10.1109/MCSI60294.2023.00033.
10. Vladareanu, Luige, Mihai Rădulescu, Marius Pandealea, Hongbo Wang, Florentin Smarandache, Yongfei Feng, **Ionel-Alexandru Gal**, and Alexandra C. Ciocîrlan. "Perceptual Anthropomorphic Walking Robot Platform for Navigation in Unstructured and Undifferentiated Environments." (2023), CANWest, ICIEICT 2023, September 11-13, Madrid Spain.
11. **Ionel-Alexandru Gal**, D.Bucur, Luige Vlădăreanu. Book Chapter: „DSmT Decision-Making Algorithms for Finding Grasping Configurations of Robot Dexterous Hands”. Editors: Florentin Smarandache, Jead Dezert, Albena Tchamova .Advances and Applications of DSmT for Information Fusion, Collected Works. Volume 5, pp. 229-314, Biblio Publishing 2023, <http://fs.unm.edu/DSmT-book5.pdf>
12. Luige Vladareanu, Hongbo Wang, Victor Vladareanu, **Ionel-Alexandru Gal**, Daniel-Octavian Melinte, Yongfei Feng, Jianye Niu, Musong Lin, Mihai Radulescu, „Synergic Intelligent Rehabilitation Robots Through Human-Robot Interaction”. symposium - SISOM 2023, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 21-22 September 2023, presented paper.
13. Mihai Radulescu, Luige Vladareanu, **Ionel-Alexandru Gal**, Ana Maria Travediu, Alexandra-Catalina Ciocirlan, Ștefan Ghibanu, Eduard Grapa. „Rehabilitation Robots using Artificial Intelligence Techniques and Multi-Sensor Systems”, symposium - SISOM 2023, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 21-22 September 2023, presented paper.

14. Bianca-Rodica Ghinoiu, Victor Vladareanu, **Ionel-Alexandru Gal**, Vlad-Alexandru Grosu, Mihai Radulescu. „Machine Learning Model using EEG Headset Data for Aerial Robotic Control”. symposium - SISOM 2023, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 21-22 September 2023, presented paper.
15. **Ionel-Alexandru Gal**, Alexandra-Cătălina Ciocirlan, Luige Vladareanu, "The Hybrid Position/Force Walking Robot Control Using Extenics Theory and Neutrosophic Logic Decision" *Sensors*, 22(10), p.3663. 2022. ISSN: 1424-8220, <https://doi.org/10.3390/s22103663>, <https://www.mdpi.com/1424-8220/22/10/3663>, **WOS:000803457000001**, eISSN:1424-8220.
16. **Ionel-Alexandru Gal**, Luige Vlădăreanu, Victor Vlădăreanu, Daniel-Octavian Melinte, "Renewable Energy Plant Architecture Using Next Generation Service Interface in the context of Industry 4.0", symposium - SISOM 2022, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 22-23 September 2022, presented paper.
17. Alexandra-Cătălina Ciocirlan, Iulian-Andrei Brabete, Victor Vlădăreanu, **Ionel-Alexandru Gal**, Ana Maria Travediu. Improving Autonomous Mobile Robot Control Systems for Mapping an Unknown Environment Using ROS, symposium - SISOM 2022, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 22-23 September 2022, presented paper.
18. **Ionel-Alexandru Gal**, Melinte D. Octavian, Dan Dumitriu, Cornel Brisan, Alexandra Ciocirlan, "PLC Control of a 2 DoF waste sorting gripper using FHPP operating modes", symposium - SISOM 2021, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 23 September, 2021, presented paper.
19. A.M. Travediu, A. Ciocirlan, V.Vladareanu, **Ionel-Alexandru Gal**, V. Prisecariu, "Real-time, multi-agent, ground control system (GCS) for robot vectors by intelligent interfaces for optimization, decision, and adaptive communication", symposium - SISOM 2021, organised by Academy of Technical Sciences, Commission of Acoustics of Romanian Academy, Bucharest, Romanian Academy, 23 September, 2021, presented paper.
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23. Vlădăreanu, Luige, **Ionel-Alexandru Gal**, Octavian D. Melinte, Victor Vlădăreanu, Mihaela Iliescu, Adrian Bruja, Yongfei Feng, and Alexandra Ciocirlan. "Robot Digital Twin towards Industry 4.0." *IFAC-PapersOnLine* 53, no. 2 (2020): 10867-10872, lucrare prezentată.
24. **Ionel-Alexandru Gal**, Vladareanu, L., Munteanu, R. I., Ciocirlan, A., & Travediu, A. M.. 'Smart wireless sensors routing protocol development aimed for smart wireless robot networks. *Acta Electroteh*, 61, 1-7 (2020).
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